STATE OF MARYLAND

DHMH

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June 22, 2012

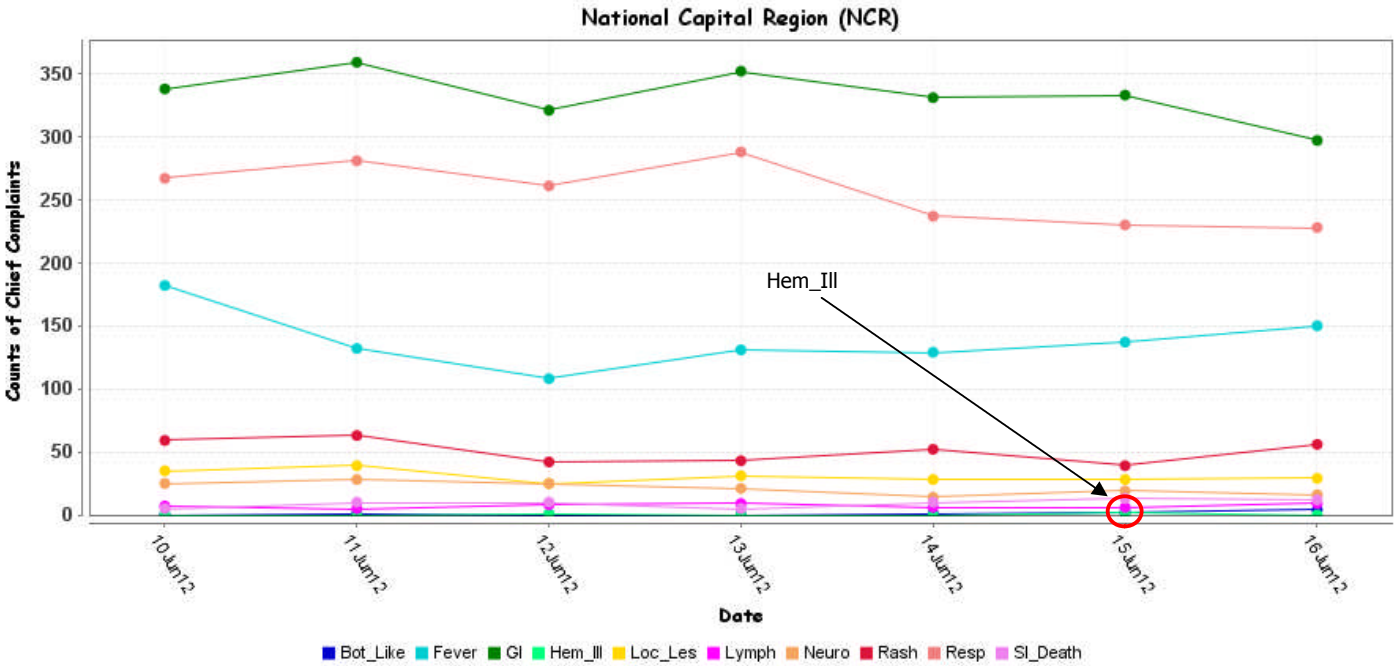
Public Health & Emergency Preparedness Bulletin: # 2012:24
Reporting for the week ending 06/16/12 (MMWR Week #24)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: **No Active Alerts**
Maryland: **Level One (MEMA status)**

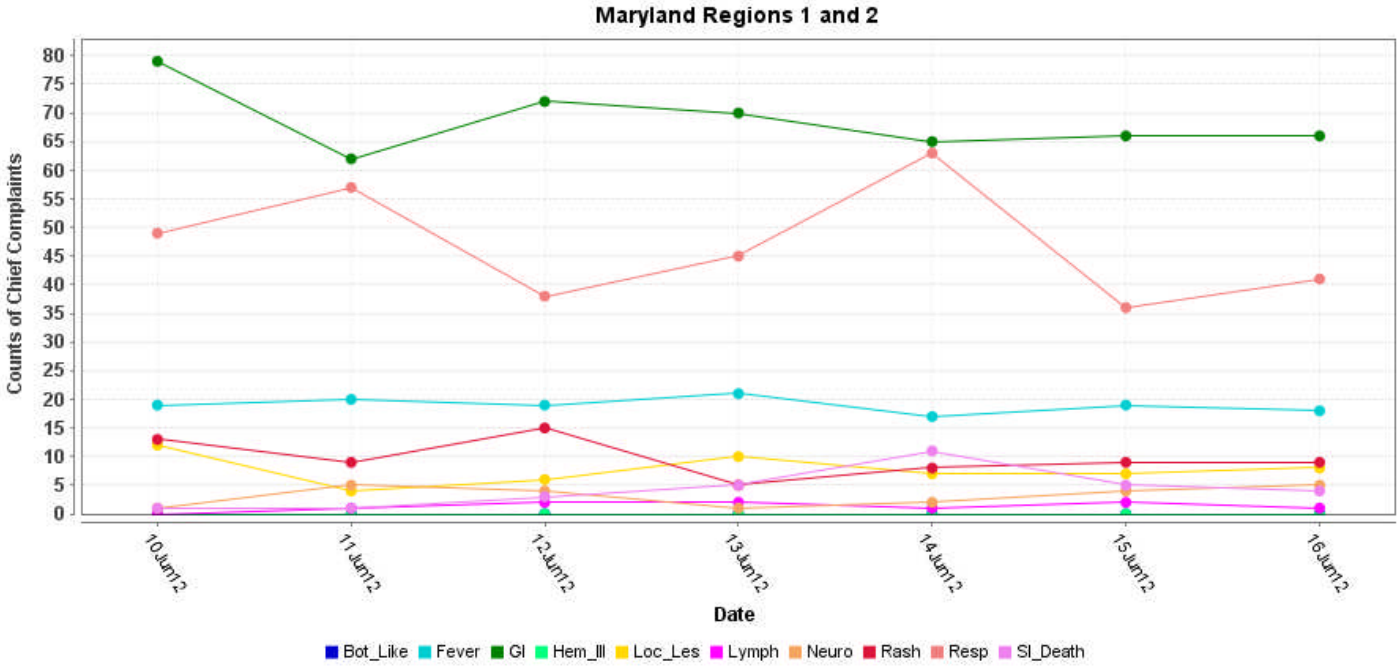
SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

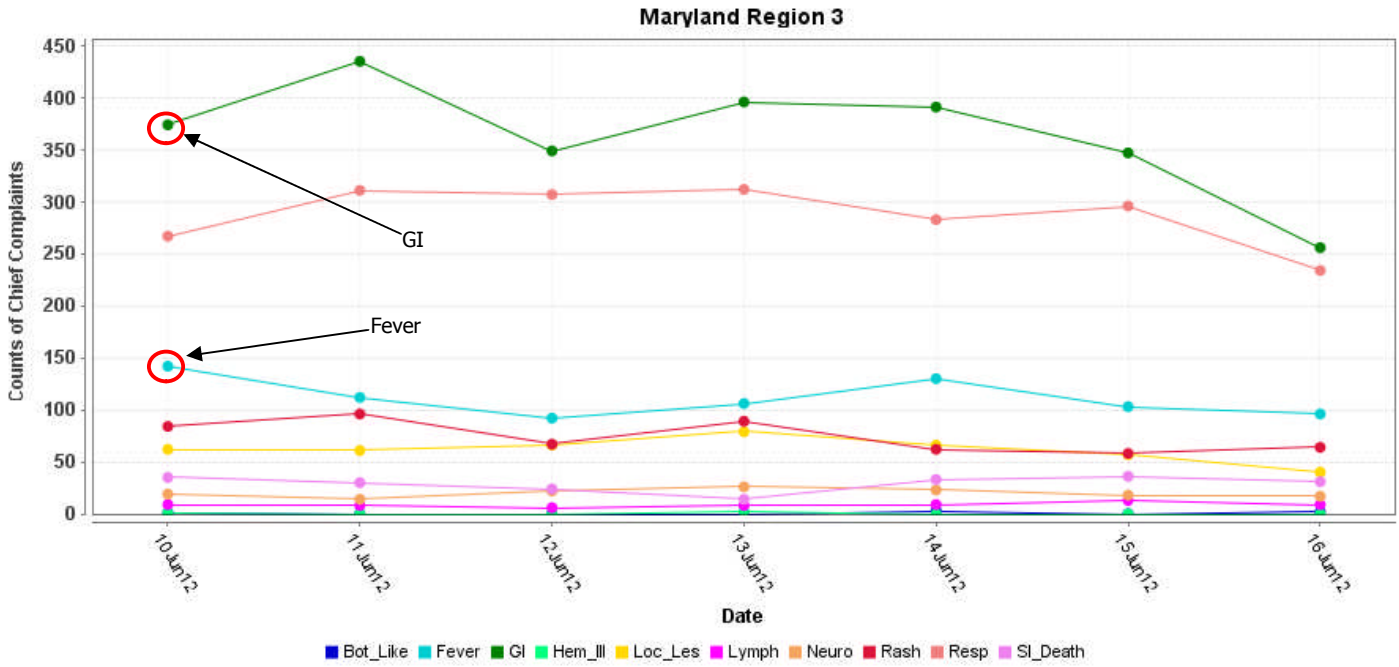


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

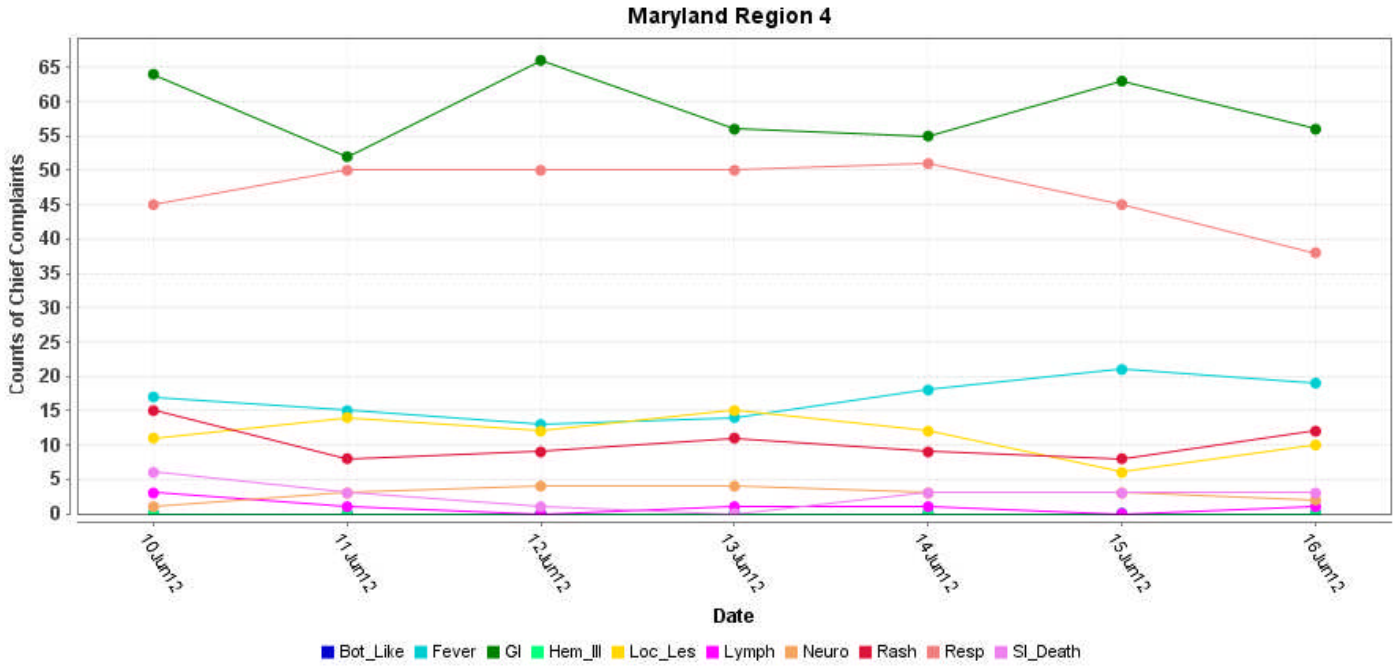
MARYLAND ESSENCE:



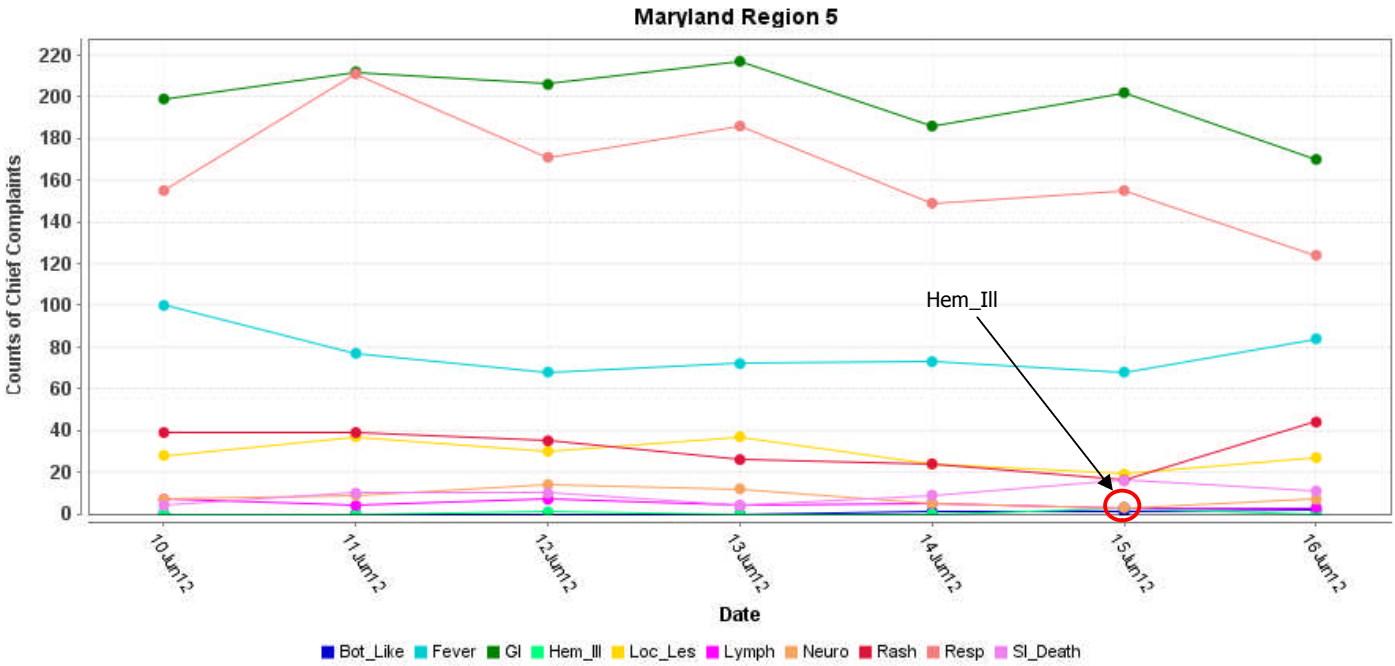
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



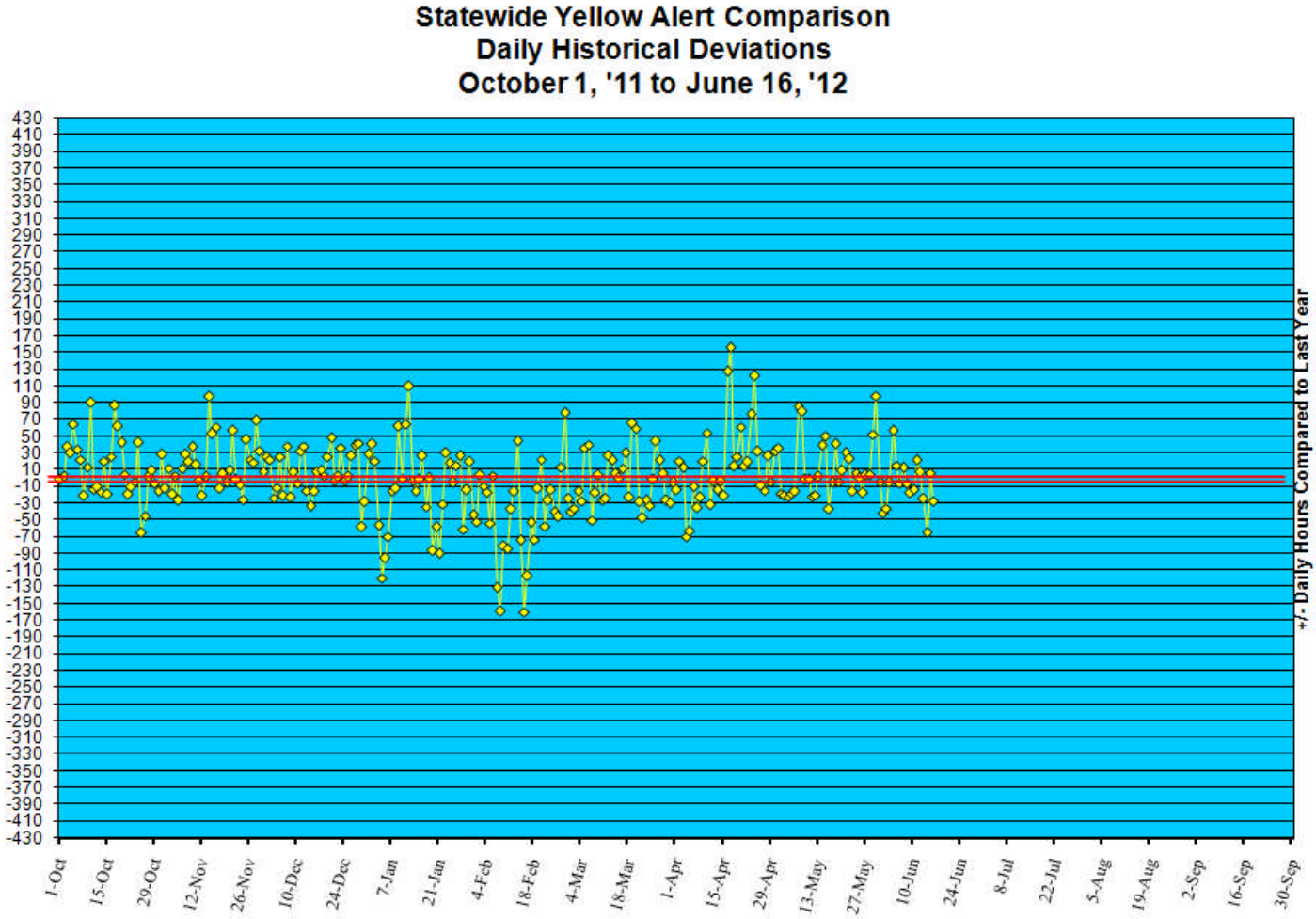
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/11.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in May 2012 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (June 10 – June 16, 2012):	9	0
Prior week (June 3 – June 9, 2012):	4	0
Week#24, 2011 (June 11 – June 17, 2011):	6	0

1 outbreak was reported to DHMH during MMWR Week 24 (June 10-16, 2012)

1 Respiratory illness outbreak
1 outbreak of LEGIONELLOSIS in a Nursing Home

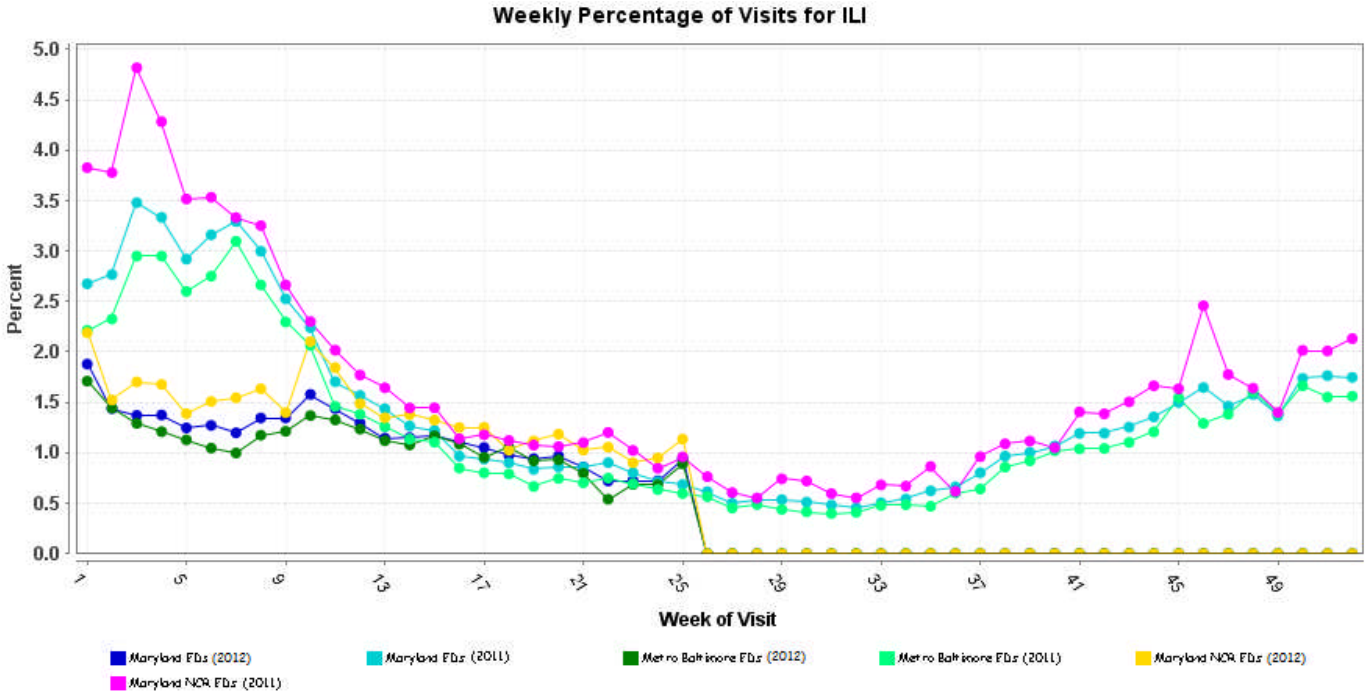
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May.

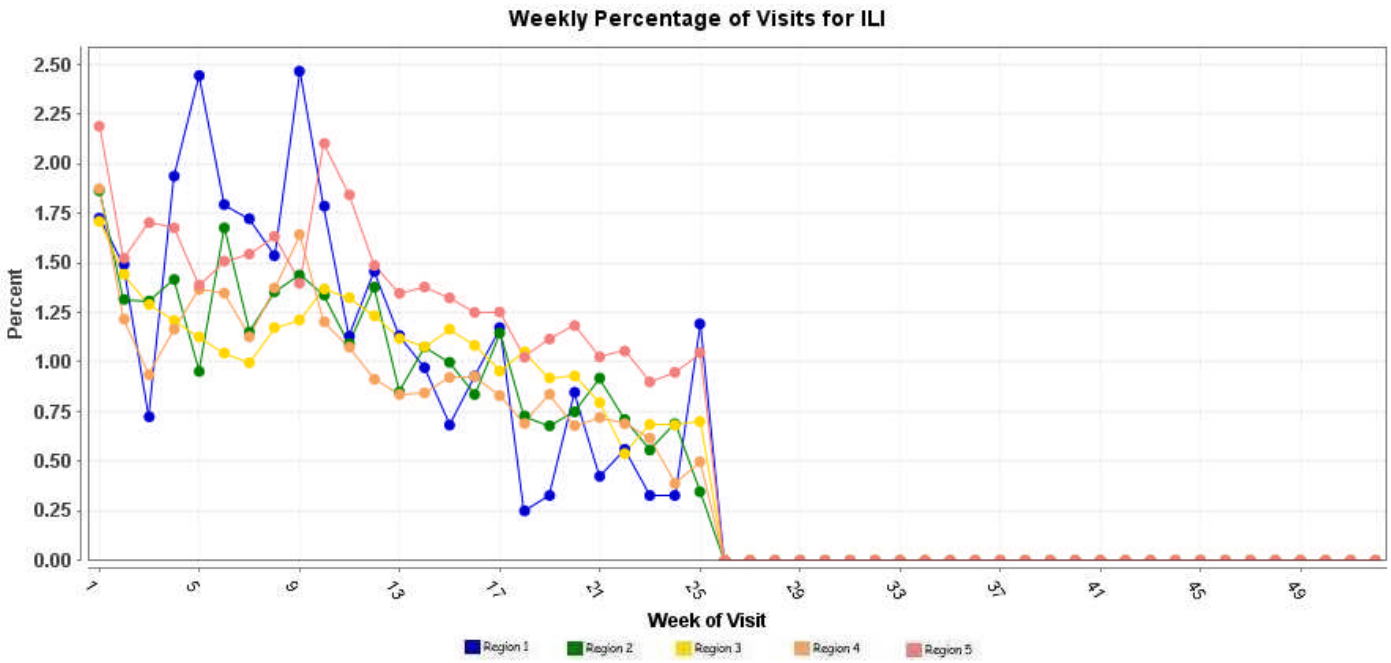
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



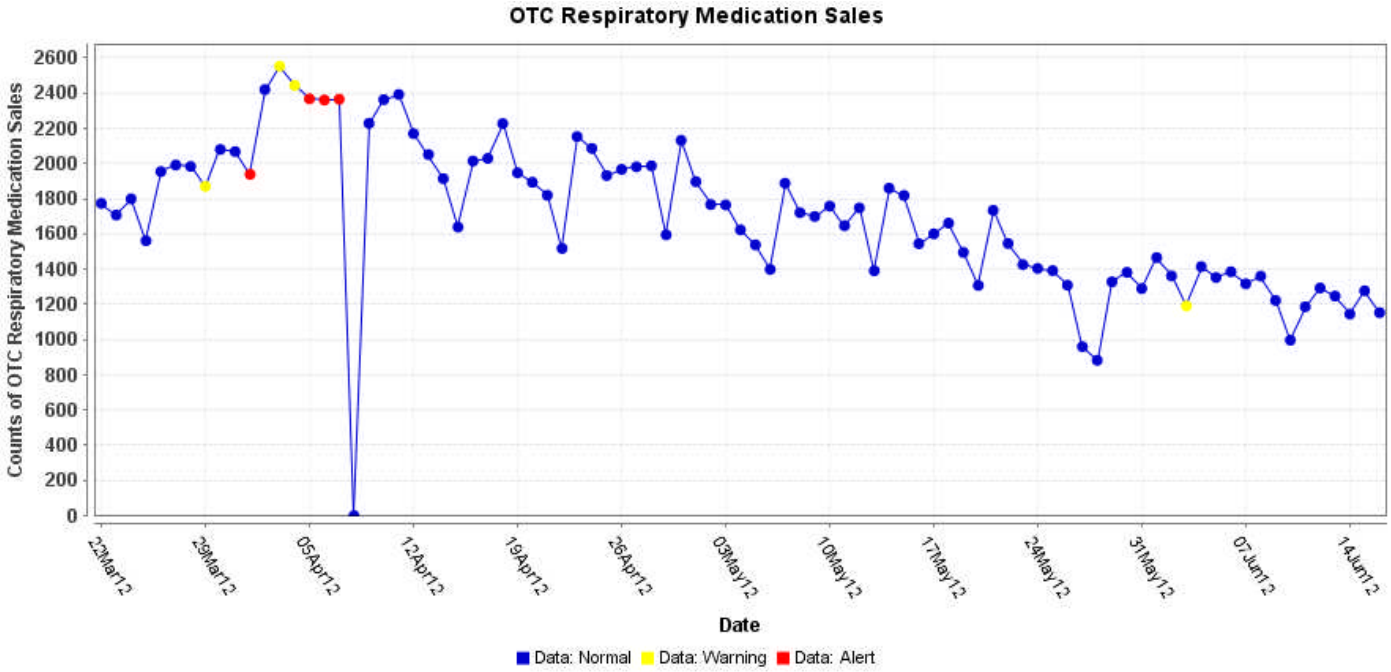
* Includes 2011 and 2012 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2012 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of June 7, 2012, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 606, of which 357 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

NATIONAL DISEASE REPORTS

SALMONELLOSIS, SEROTYPE INFANTIS (USA): 14 June 2012, A total of 22 individuals infected with the outbreak strain of Salmonella [enterica serotype] Infantis have been reported. 20 ill persons have been reported from 13 states. The 5 new cases are from: Alabama (1), California (1), Illinois (1), New York (1), and South Carolina (1). Additionally, 2 ill persons have been reported from Canada. Among persons for whom information is available, illnesses began between October 2011 and 11 May 2012. Ill persons range in age from less than 1 year old to 82 years old and the median age is 46.5 years. 68 percent of patients are female. Among the 17 patients with available information, 6 (35 percent) were hospitalized. No deaths have been reported. Illnesses that occurred after 11 May 2012 might not yet be reported due to the time it takes between when a person becomes ill and when the illness is reported. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

PLAGUE (OREGON): 12 June 2012, Crook County health officials said Mon, 11 Jun 2012, they are investigating a probable case of human plague involving a man in his 50s who is being treated at a local hospital. Contacts with the individual have been notified and are receiving preventive antibiotics, officials said. The man reported contact with a sick stray cat in his neighborhood, they added. Crook County officials did not identify the man, citing patient confidentiality regulations, but a family member contacted News Channel 21, which then learned he's in critical condition at St. Charles Medical Center-Bend. A family member told us he's been only given 30 percent survival odds at present. The man was bitten by the cat last week and within 48 hours was taken to a Portland hospital for treatment. He was then moved to Bend, where he is now fighting for his life. Friends say his organs started shutting as they wait to see if antibiotics can get rid of the illness. Plague is spread to humans or animals through a bite from an infected flea or by contact with an animal sick with the disease. "People can protect themselves, their family members and their pets," said Karen Yeargain, communicable disease coordinator with the Crook County Health Department. "Using flea treatment on your pets will prevent your pets from bringing fleas into your home. Plague is serious but it is treatable with antibiotics if caught early." A domestic cat in Crook County tested positive for bubonic plague a year ago. "For people, it's the cats bringing home the fleas to a household or being in contact with a cat or dog who is actually sick with the plague," Yeargain told NewsChannel 21. "Almost exactly a year ago, we did have a cat diagnosed with the plague," said Yeargain, "that cat also had septicemic, or bloodstream infection, and that cat did pull through. Plague is rare in Oregon. Only 3 human cases have been diagnosed statewide since Crook County's last case of plague in 1995. According to Yeargain, the last Crook County case occurred in a resident who was exposed to plague-infected fleas from household cats that hunted rodents in the fields. 2 of 3 cats in that household also tested positive for plague exposure. In 2010, 2 human cases of plague were diagnosed in Lake County. Further investigation revealed that the family dog had also been exposed to plague. In 2011, an additional case with exposures in Lake County was diagnosed. There were no fatalities in humans or household animals in these cases. Symptoms of plague typically develop within 1 to 4 days after exposure. 3 clinical syndromes have been described; bubonic (lymph node infection), septicemic (blood infection), and pneumonic (lung infection). Bubonic plague is the most common form and is characterized by high temperatures, lethargy and swollen lymph nodes, most commonly in the neck and under the jaw. Infected lymph nodes may spontaneously abscess and drain. Collin Gillin, DVM, Oregon Department of Fish and Wildlife, reminds people that if anyone observes sick or dead rodents of any kind, to contact the Oregon Department of Fish and Wildlife veterinarians. Some additional steps to prevent flea bites are to wear insect repellant, tuck pant cuffs into socks when in areas heavily occupied by rodents, and avoid contact with wildlife including rodents. Pet owners are encouraged to keep cats indoors. Also, do not handle ill-appearing stray or wild animals. (Plague is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

E. COLI EHEC (BELGIUM): 16 June 2012, The fact that 19 cases of infection with the bacterium E. coli [O157] have been detected in Limburg was reported Thu 14 Jun 2012, by the Federal Agency for the Safety of the Food Chain (AFSCA) after being alerted by the Department of the Public Health Monitoring in Hasselt. All cases would be related to the ingestion of raw meat, American style fillet. Of these 19 cases, 3 show the symptoms of hemolytic uremic syndrome (HUS), an infection that causes renal failure and sometimes neurological symptoms. As a result of this discovery, the AFSCA has launched an investigation in order to detect the cause of this contamination. "On the basis of the presumed date of the purchase, consumption and the emergence of the disease, the beef thought to be involved has been recalled," explains the AFSCA in a press release. The initial results of sampling of the meat have revealed the presence of _E. coli_ O157. The meat in question has therefore been seized and destroyed but the investigation is continuing, said the FASFC. "The contamination demonstrated once again the importance of good hygiene practices in a slaughterhouse, in the workshops of cutting of meat," still thinks the agency. The EHEC bacteria is commonly found in the intestines of cattle. The human contamination has held the most often as a result of the ingestion of raw meat or undercooked meat, to the consumption of raw milk or raw contaminated vegetables. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

CRIMEAN-CONGO HEMORRHAGIC FEVER (PAKISTAN): 16 June 2012, A 57-year-old farm worker from the Dalbandin area in Balochistan (Baluchistan} who was admitted to the Liaquat National Hospital [LNH] in the city with a history of high-grade fever, muscle pain and gum bleed died on Wed 13 Jun 2012 it emerged on Thursday. Sources at the LNH said that the Pashto-speaking patient was admitted to the hospital on 10 Jun 2012. He tested positive for Crimean-Congo hemorrhagic fever (CCHF) virus infection at a private university hospital laboratory. He became tachypnic [rapid respiration], his oxygen level dropped after midnight and he was declared clinically dead on Wednesday morning [13 Jun 2012]. A trader from Quetta accompanying the patient told Dawn that the dead was a relative of a customer of his and he was a member of a group that came to Karachi. "As I was told, the man kept a cattle herd at his home in a village some 600 kilometers from Quetta and received treatment at a private hospital in Quetta before coming to Karachi," he said. The deceased was a resident of Gardi Jungle district, near Dalbandin, and was doing different jobs, including feeding goats and cleaning cattle pens, to earn a living. Having symptoms such as low-grade fever, myalgia [muscle pain] and generalized weakness, he continued working before he began bleeding from the nose which became profuse in the next half an hour. The patient was admitted to the LNH in the evening of 10 Jun 2012 and was shifted to the medical ICU. A total of 3 deaths caused by the CCHF virus infection were reported in 2010, 2 in 2011, including that of a doctor who was believed to have contracted the deadly viral infection during a surgical operation in Quetta, and a young man of Gazdarabad, Ranchhore Line. A source at the Dengue Surveillance [Group] of the Sindh Health Department, which also records CCHF cases reported in the province, said 4 persons had been reported as confirmed CCHF patients by 3 different private health concerns in the city this year. 3 of them, including the latest victim, came from Balochistan, said the source, adding that the death of the patient was the 1st caused by the CCHF in the city this year. Dr. Shobha Luxmi, an infectious disease consultant at the LNH, said the patient had the history of handling livestock as well. CCHF is a tick-transmitted viral hemorrhagic fever and sporadic cases and outbreaks affecting humans did occur in Pakistan, she said, adding that the disease was endemic in many other countries. (Viral Hemorrhagic Fever is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

JAPANESE ENCEPHALITIS AND OTHER (INDIA): 16 June 2012, Acute encephalitis syndrome (AES), the deadly mosquito-borne disease that has hit Bihar and Uttar Pradesh, 2 of India's most populated states, is spreading. More deaths of AES patients, mostly children from poor families, from the states have been reported and the outbreak of the ailment seems far from being contained. With 9 more children dying of AES in Bihar's Gaya, Muzaffarpur, and Patna districts, according to officials Saturday [16 Jun 2012], the toll has risen to a shocking 159 in just 3 weeks. "Fresh AES cases have been reported from all 10 affected districts," a state health department official said. In Uttar Pradesh, 88 people have succumbed to various strains of AES in the last 2 weeks, prompting the state government to press the panic button. Most of the cases have come from the eastern district of Gorakhpur, near Bihar. In Bihar, as many as 409 children have been detected with AES and of them, 159 have died and 82 admitted to hospitals, said Additional Secretary (Health) RP Ojha. The rest have been discharged, he said. The worst affected districts include Patna, Gaya, Muzaffarpur, Sitamarhi, East Champaran, and Vaishali. Health officials say AES has killed lives of 100 children in Muzaffarpur alone. Alarmed, Health Minister Ashwani Kumar Choubey has asked the striking junior doctors of the Patna Medical College Hospital to resume work. A team from New Delhi is now in Muzaffarpur, around 75 km [47 mi] from Patna, to help contain the fatal viral disease. "All medical colleges and hospitals have been directed to provide free medicines to patients having AES symptoms," said Health Secretary Vayasji. However, Bihar is yet to declare AES an epidemic. In Uttar Pradesh, health officials say that till 10 Jun [2012], 467 cases of AES came to primary health centres, hospitals and the BRD Medical College in Gorakhpur. Director General of Medical Health Ram Ji Lal said: "The disease has begun spreading a little early this time round, but we are ready to take it on." The disease, which killed more than 600 people last season [2011], is peaking in areas around Gorakhpur, officials say. Lal said the maximum number of deaths have been reported from Gorakhpur followed by Kushinagar, Deoria, and Maharajganj. However, no infection of Japanese encephalitis, a virulent strain, has been reported, said health officials. But they caution that this did not mean that the disease had been contained. "We are keeping our fingers crossed and doing our best to prevent the epidemic-like situation as last year [2011]," an official told IANS. (Viral Encephalitis is listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN (GERMANY): 12 June 2012, Blood cultures from a drug injecting heroin user who died last week [5 Jun 2012] at a hospital in Regensburg have shown the presence of Bacillus anthracis. The patient was hospitalized due to acute septic disease and died on the day of admission. Initial diagnostics tests were performed using PCR targeting the rpoB-, pagA-, and capC-genes at the Institute of Medical Microbiology and Hygiene, University of Regensburg pointing to Bacillus anthracis as the causative agent. The results were confirmed using additional chromosomal markers by the Bundeswehr Institute of Microbiology in Munich. Further molecular typing of the strain is in progress. The responsible Bavarian health authorities are involved in the management of the case in close contact with the diagnostic institutions and the police authorities. Health officials believe that contaminated heroin or a contaminated cutting agent mixed with the heroin may be responsible for the infection. Investigations by the German police authorities are in progress. Doctors and diagnostic laboratories should consider anthrax as a possible disease in injecting heroin users presenting with fever or sepsis at the emergency room. (Anthrax is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN, BOVINE (BULGARIA): 12 June 2012, A total of 11 people have been in contact with an anthrax infected cow in the village of Takach, according to Dr. Dimitar Kostov, director of RZI-Shumen. The men participated in the slaughter of animals at the end of last week [8 or 9 Jun 2012]. According to Dr. Kostov a single case of cutaneous anthrax has been confirmed in a male patient in Shumen hospital. He is currently in a stable condition. The other 10 people were given antibiotics for prevention, with instructions to take them for 8 days. In Izvurshva village more than 1,000 animals have been vaccinated by the Agency for Food Safety. "A private veterinary practitioner failed to inform state authorities about the case in Takach and his detailed explanation has been requested," commented Dr. Katya Dimitrova, director of the Food Safety Agency in Shumen. In her words, "When the results of the surveyed meat at the Reference Laboratory in Sofia are available in a few and all will become clear." (Anthrax is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents

Table: Text-based Syndrome Case Definitions and Associated Category A Conditions

Syndrome	Definition	Category A Condition
Botulism-like	ACUTE condition that may represent exposure to botulinum toxin ACUTE paralytic conditions consistent with botulism: cranial nerve VI (lateral rectus) palsy, ptosis, dilated pupils, decreased gag reflex, media rectus palsy. ACUTE descending motor paralysis (including muscles of respiration) ACUTE symptoms consistent with botulism: diplopia, dry mouth, dysphagia, difficulty focusing to a near point.	Botulism
Hemorrhagic Illness	SPECIFIC diagnosis of any virus that causes viral hemorrhagic fever (VHF): yellow fever, dengue, Rift Valley fever, Crimean-Congo HF, Kyasanur Forest disease, Omsk HF, Hantaan, Junin, Machupo, Lassa, Marburg, Ebola ACUTE condition with multiple organ involvement that may be consistent with exposure to any virus that causes VHF ACUTE blood abnormalities consistent with VHF: leukopenia, neutropenia, thrombocytopenia, decreased clotting factors, albuminuria	VHF
Lymphadenitis	ACUTE regional lymph node swelling and/ or infection (painful bubo- particularly in groin, axilla or neck)	Plague (Bubonic)
Localized Cutaneous Lesion	SPECIFIC diagnosis of localized cutaneous lesion/ ulcer consistent with cutaneous anthrax or tularemia ACUTE localized edema and/ or cutaneous lesion/ vesicle, ulcer, eschar that may be consistent with cutaneous anthrax or tularemia INCLUDES insect bites EXCLUDES any lesion disseminated over the body or generalized rash EXCLUDES diabetic ulcer and ulcer associated with peripheral vascular disease	Anthrax (cutaneous) Tularemia
Gastrointestinal	ACUTE infection of the upper and/ or lower gastrointestinal (GI) tract SPECIFIC diagnosis of acute GI distress such as Salmonella gastroenteritis ACUTE non-specific symptoms of GI distress such as nausea, vomiting, or diarrhea EXCLUDES any chronic conditions such as inflammatory bowel syndrome	Anthrax (gastrointestinal)

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Respiratory	ACUTE infection of the upper and/ or lower respiratory tract (from the oropharynx to the lungs, includes otitis media) SPECIFIC diagnosis of acute respiratory tract infection (RTI) such as pneumonia due to parainfluenza virus ACUTE non-specific diagnosis of RTI such as sinusitis, pharyngitis, laryngitis ACUTE non-specific symptoms of RTI such as cough, stridor, shortness of breath, throat pain EXCLUDES chronic conditions such as chronic bronchitis, asthma without acute exacerbation, chronic sinusitis, allergic conditions (Note: INCLUDE *acute exacerbation* of chronic illnesses.)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Neurological	ACUTE neurological infection of the central nervous system (CNS) SPECIFIC diagnosis of acute CNS infection such as pneumoccocal meningitis, viral encephailitis ACUTE non-specific diagnosis of CNS infection such as meningitis not otherwise specified (NOS), encephailitis NOS, encephalopathy NOS ACUTE non-specific symptoms of CNS infection such as meningismus, delerium EXCLUDES any chronic, hereditary or degenerative conditions of the CNS such as obstructive hydrocephalus, Parkinson's, Alzheimer's	Not applicable
Rash	ACUTE condition that may present as consistent with smallpox (macules, papules, vesicles predominantly of face/arms/legs) SPECIFIC diagnosis of acute rash such as chicken pox in person > XX years of age (base age cut-off on data interpretation) or smallpox ACUTE non-specific diagnosis of rash compatible with infectious disease, such as viral exanthem EXCLUDES allergic or inflammatory skin conditions such as contact or seborrheaic dermatitis, rosacea EXCLUDES rash NOS, rash due to poison ivy, sunburn, and eczema	Smallpox
Specific Infection	ACUTE infection of known cause not covered in other syndrome groups, usually has more generalized symptoms (i.e., not just respiratory or gastrointestinal) INCLUDES septicemia from known bacteria INCLUDES other febrile illnesses such as scarlet fever	Not applicable

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Fever	ACUTE potentially febrile illness of origin not specified INCLUDES fever and septicemia not otherwise specified INCLUDES unspecified viral illness even though unknown if fever is present EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome	Not applicable
Severe Illness or Death potentially due to infectious disease	ACUTE onset of shock or coma from potentially infectious causes EXCLUDES shock from trauma INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births EXCLUDES induced fetal abortions, deaths of unknown cause, and unattended deaths	Not applicable